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THE MONTANA ROUNDUP

OF INDUSTRIAL HEALTH BRIEFS

Montana State Board of Health — Division of Industrial Hygiene
W. F. Cogswell, M.D., Executive Officer — Dohrman H. Byers, Director

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OCCUPATIONAL SKIN DISEASES

Skin diseases are a major cause of absenteeism in industry. Yet many of these conditions may be avoided by engineering control of the working environment and by education of the worker in habits of strict cleanliness and the proper use of protective equipment.

Workers should be carefully selected for jobs in which it is known that skin hazards exist. Individuals with chronic skin conditions or having a history of dermatitis due to particular substances which they may meet in the new work, should not be placed in these jobs because of their sensitivity. Foremen should be instructed to observe new workers for skin conditions that may develop and to send the worker to the medical department for examination.

Not every skin condition is due to industrial hazards, for often the cause lies outside of work. In cases of suspected occupational skin diseases, the doctor will determine individual sensitivity by patch tests, provided the disease is not caused by exposure to some strongly corrosive chemical. If the dermatitis clears after absence from work and reappears upon return to the job, the cause is probably occupational. Certain irritants affect every skin (primary irritants), while others affect only a few. If after a certain time, the skin affection does not improve following proper treatment or if an immunity is not established, the worker should be transferred to other work.

Dermatoses are caused by irritants coming in direct contact with the skin or by penetrating through the clothing. Any part of the body may be affected but the usual sites are the hands, arms, face and neck, or any part of the skin where the contaminated clothes cause friction against the body. The skin condition may be merely annoying because of itching or unsightliness. It may become disabling if not discovered early and given proper treatment.

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A few of the primary irritants are cutting oils, solvents, strong acids and alkalies. The worker may come in contact with them in the form of solids, liquids, dusts, fumes or vapors. When irritants are known to be present, study of the environment should be followed by engineering control of the hazard by mechanical ventilation, by enclosed processes or other mechanical devices, by the use of protective clothing, enforced personal cleanliness, and by good housekeeping. Consultation service in studying these problems is available to industry on request to the industrial hygiene division of the State Board of Health.

Protective clothing provided for the worker should be light in weight, comfortable, pliant and not cumbersome. Gloves, sleeves, aprons and overalls should fit snugly. Such clothing should be washed daily. Where protective clothing cannot be used, ointments afford partial protection. They should be non-irritating and non-sensitizing and should be removed at quitting time with warm water and soap. (Formulas for these ointments are given in the Manual of Industrial Hygiene, prepared by the Industrial Hygiene Division, United States Public Health Service, Chapter X. Saunders, Philadelphia, 1943).

New workers placed in jobs with known skin hazards should be informed of the dangers and of preventive measures to be used. Cleanliness of body, work clothes and workroom are of first importance. Floors, walls and machinery should be kept clean. Work clothes should be washed daily. Daily baths and clean underwear each day are recommended. Convenient washing facilities should be provided for washing of hands and face. Showers should be provided and should be used before changing into street clothes. Hands should be thoroughly washed before touching food. Work clothes are preferably hung in separate lockers from street clothes.

Workers frequently use waste soiled with contaminants or containing dust and metal slivers, to wipe perspiration from their faces or dirt from their hands. Resulting abrasions may predispose to dermatitis, especially in older persons and those coming in contact with solvents. Clean waste, rags, or towels should be provided and workers instructed to use them.

Another harmful custom of workers is using strong abrasive soaps, highly alkaline soaps or powerful solvents to clean their hands. These should not be used. Special cleansing agents have been developed to remove dirt and stains difficult to clean off with ordinary soap and water. After drying the hands, a cold cream or a mixture of 70 percent lanolin and 30 percent castor oil should be applied to replace lost skin oils and fats of people with naturally dry skins. Prevention and control of occupational dermatoses therefore, include:

1. Careful selection of workers in jobs with known skin hazards.
2. Engineering control of environment with elimination of irritants as far as possible.
3. Use of protective clothing and ointments.
4. Education of the worker in rules of personal hygiene.
5. Early diagnosis and proper treatment of skin conditions.

Copies of a pamphlet entitled "Save Your Skin" and a 10"x 14" poster bearing the legend "Beat The Skin Game" may be secured through the Division of Industrial Hygiene, Capitol P. O. Box 81, Helena, Montana.

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CADMIUM FOUND AS HEALTH HAZARD IN SILVER SOLDERING

Investigation by the Kansas City Area Industrial Hygiene Service of complaints that workers in a silver manufacturing plant were suffering from respiratory distress led to discovery of the fact that high concentrations of cadmium fumes were being given off in silver soldering.

Fluoride content in the flux used had been blamed for the difficulty. Analysis of air samples collected by the plant industrial hygiene engineer showed concentration of fluorides to be well below the hazardous level, but when the Industrial Hygiene Service engineer examined samples taken by means of an electrostatic precipitator mounted upon an impinger, it was noted that the smoke and fume collected had a distinct yellow color. Analysis of a dolder sample revealed an 18 per cent cadmium content. Further investigation showed that silver solders sometimes contain as high as 70 per cent cadmium.

Exhaust ventilation was installed at the operation to collect the fumes at their source. The plant laboratory, upon recommendation of the Industrial Hygiene Service, is working to develop a satisfactory solder not containing cadmium. (Industrial Hygiene News Letter)

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IT CAN HAPPEN HERE

Not so long ago, a Missouri city industrial health division reported a grimly amusing incident which occurred in a plant in their city. In an accident, a workman received cuts about the head. A would-be first-aider zealously set to work to stop the bleeding by applying a tourniquet about the victim's NECK. Indeed! A little knowledge can be a dangerous thing. Oh, yes! Someone did stop our zealot before he strangled the man.

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Mary caught a cold at school,
She sneezed it to her brother.
A drinking cup next got the germ
And passed it to another.
--Nebraska's "Better Health"

TRIORTHOCRESYL PHOSPHATE ABSORBED THROUGH THE SKIN

Triorthocresyl phosphate, used as a plasticizer in lacquers and varnishes if absorbed can cause paralysis of the extremities. Hodge and Sterner have found that triorthocresyl phosphate containing radioactive phosphorus was absorbed through the palmar skin of human hands and through the abdominal skin of a dog. The magnitude of absorption of triorthocresyl phosphate through human skin is such that a real hazard exists in industrial operations permitting a considerable or repeated exposure to this compound. A safe industrial hygiene control requires that measures be taken to prevent such skin contact and that all workmen exposed to the compound be instructed as to the hazard, and the necessity for preventing skin contamination. (J. Pharmacal & Exper. Therop., Nov., 1944).

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O! SAY CAN YOU SEE

War Production is hard on the eyes as well as on the enemy, the War Production Board says. Nearly half of the nation's war workers need glasses and could do a better job if they got them, the WPB concluded after a survey of 7,500 plants. But plant managers don't do much about it; 92 percent of the plants do not examine the eye condition of workers who have been reported for poor production; 30 percent do not know if the lighting in their shops is up to the American standard code; 63 percent of those who provide prescription glasses do not understand the need for having prescriptions suited to the worker's job.--The Wall Street Journal, January 22, 1945. (Industrial Hygiene Foundation).

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WHY BET ON A DARK HORSE!

Have the illumination in your plant scientifically checked and bring the dark spots to light!

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BUY WAR BONDS